

ABSTRACT

The invention relates to the field of coronaviruses and diagnosis, therapeutic use, and vaccines therefor. Methods are shown for at least in part inhibiting anti-parallel coiled coil formation of a coronavirus spike protein which methods include decreasing the contact between heptad repeat regions of the coronavirus spike protein. The invention provides a peptide comprising a heptad repeat region of a corona viral spike protein and/or a functional fragment and/or a derivative thereof. The invention also provides antibodies and compounds inhibiting corona viral infection of cells, and/or cell-to-cell fusion. The invention also includes heptad repeat regions and a fusion peptide of SARS-CoV.